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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,830	12/11/2003	Masahiro Kuroki	14470.21US01	1985
23552	7590	11/28/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SPISICH, GEORGE D	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,830	Applicant(s) KUROKI ET AL.	
	Examiner George D. Spisich	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Examiner acknowledges Applicant's election of the Invention of Group I, claims 1-8, made without traverse in the reply filed on September 22, 2005

Claims 9-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the nonelected Invention of Group II, there being no allowable generic or linking claim.

Specification

The disclosure is objected to because of the following informalities:

The Brief Description of Figure 20 is inaccurate since it shows the embodiment and the comparative example.

Page 16, line 4 (at least) is objected to, since the disclosure of Figure 22B is unclear since there are 2 Figure 22B's in the Figures.

Page 17, line 2, "deferential" should be - - differential - -.

Applicant is responsible for correcting any existing spelling problems.

Appropriate correction is required.

Drawings

The drawings are objected to because there are 2 Figures labeled "22B". Also, the word "comarative" is misspelled in Figure 22B. Examiner also suggests, the term "comparative" be replaced with the term "Prior Art" if the Applicant is intending to show the details of what is old and well known in the current state of the art. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 2, the phrase "in the order of" is unclear.

In claim 1, lines 5-6, are unclear. It is unclear to claim that the suspension arms (of which only 2 are claimed) are arranged to the front and rear of the differential without claiming the suspension arms each having particular structure to allow for a portion of each arm to be arranged to the front and rear of the differential.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama et al. (USPN 6,286,619) provided in Applicant's IDS in view of Fukuda et al. (USPN 5,515,070).

Uchiyama et al. discloses a suspension arrangement having left and right suspension arms (63) mounted to a vehicle frame in a moveable manner, each suspension arm being attached with a wheel (26). The suspension arms are independently moveable in a vertical direction with respect to each other and the vehicle frame. The wheels are driving wheels and there is a shock absorber (78) linked to the left and right suspension arms. Portions of the suspension arms are arranged to the front and rear of a differential mechanism (as best shown in Figure 4)

Uchiyama et al. includes the well known combination of a transmission, reduction gear and differential. However, the differential being arranged below the other two is not clearly disclosed.

Fukuda et al. teaches what is basic and well known in the art that the arrangement of the power train elements, which include a transmission, a reduction gear mechanism and a differential mechanism may be in a variety of relationships with respect to one another. Fukuda et al. discloses the differential mechanism (10) arranged "below" the remaining elements of the drive train.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a drive train including a transmission, reduction gear mechanism and differential mechanism and deliver transmitting drive force to the wheels "in that order" further having the differential arranged below the

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other two as taught by Fukuda et al. as it is well known in the art to arrange the elements of the drive train in this or any feasible manner.

With respect to the terms "to the front and rear", Examiner points out that the suspension arms merely be arranged in the front and rear of the differential in a longitudinal direction of the vehicle and this limitation is met in the side view.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama et al. (USPN 6,286,609) in view of Fukuda et al. (USPN 5,156,070) as applied to claims 1-6 above, and further in view of Peterson (USPN 5,364,114).

Uchiyama et al. and Fukuda et al. has been discussed above. However, neither reference discloses a swing mechanism, having a connecting member connected to the suspension arms and the mechanism operatively connected to the vehicle frame to prevent severe swinging of the frame when cornering.

Peterson discloses a suspension arrangement having left and right suspension arms and further comprising a swing mechanism (49) operatively connected to the vehicle frame whereby the swing of the vehicle frame is prevented from becoming severe when the vehicle is cornering and the swing mechanism comprises a connecting member (40) connecting the swing mechanism to the left and right suspension arms. This mechanism is used in addition to shock absorbers (66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension arrangement of Uchiyama et al. in

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view of Fukuda et al. to provide a swing mechanism connected to the frame and the suspension arms to prevent severe swing of the vehicle when cornering as taught by Peterson to provide a more stable and better handling vehicle.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kubo et al. (USPN 4,676,123), Lings (USPN 4,798,254), Hori et al. (USPN 6,510,916), Gagnon et al. (USPN 6,732,830), Sato et al. (USPN 4,360,224), Seki (USPN 6,827,361), Lutz (USPN 5,829,542), Derviller (USPN 5,199,526), Tonomura (USPN 4,902,033), Haggerty et al. (USPN 4,778,199), Seto (USPN 6,533,060), Shin (USPN 5,558,361), Duphily et al. (USPN 4,470,611), Parsons, Jr. (USPN 3,598,385), EP 0 626 307 A1, EP 1 403 172 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George D. Spisich
November 18, 2005



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